

"This (conference) is one of the best!"

Dr Inna Prevozskaya, Senior Biometrician, Clinical Biostatistics, Merck Research Laboratories

Speaker: SMI's Inaugural conference Innovating Clinical Drug Development

- A Focus on Biostatistics for Clinical Drug Design 2006



SMi present their cutting edge Conference on...

Adaptive Designs in Clinical Drug Development – Scope, Implementation & Case Studies

5th & 6th February 2007, Crowne Plaza - The City, London

PLUS AN ASSOCIATED HALF-DAY POST-CONFERENCE EXECUTIVE BRIEFING

Introduction to Adaptive Designs - Concepts & Issues

7th February 2007, Central London

In association with: [Institute for Medical Statistics, Informatics & Epidemiology, University of Cologne](#)

Hear contributions from leading and influential industry experts, including:

- **Dr Michael Krams**, aVP, Adaptive Trials, Clinical Development, [Wyeth](#)
- **Dr Vlad Dragalin**, Senior Director, Research Statistics, [GlaxoSmithKline](#)
- **Dr Jerald Schindler**, President, [Cytel Pharmaceutical Research](#)
- **Dr Steve Pascoe**, Global Head, Respiratory/Dermatology Profiling Exploratory Clinical Development, [Novartis](#)
- **Dr Carl-Fredrik Burman**, Statistical Science Director, [AstraZeneca](#) & **Christian Sonesson**, Senior Statistician, [AstraZeneca](#)
- **Dr William Wang**, Associate Director, Clinical Biostatistics, [Merck & Co](#)
- **Dr Ian Hirsch**, Statistics, [Medicines & Healthcare products Regulatory Agency \(MHRA\)](#)
- **Dr Mark Chang**, Technical Director, [Millennium Pharmaceuticals](#)
- **Dr Jerry Weaver**, Associate Director, [Pfizer](#)

Key issues to be addressed at the conference include:

- **ADAPTIVE TRIAL DESIGN INFRASTRUCTURE:** Hear from prominent thought leaders as they discuss the challenges encountered whilst acquiring early data and linking information with drug supply
- **IMPLEMENTING ADAPTIVE TRIALS:** Listen as our experts discuss whether the market is ready to embrace adaptive clinical trials and how to deal with any complications in design and implementation that may arise
- **REGULATORY ACCEPTANCE:** Discover the opportunities and challenges arising from EMEA, FDA and MHRA guidelines. What effect will they have on your businesses?
- **BAYESIAN METHODS:** Overcome the challenges associated with Bayesian tools whilst providing a practical point of view to efficiently and effectively decrease the time spent conducting clinical trials
- **MODELLING AND SIMULATION:** Hear practical examples and case studies on the application of adaptive design in various stages of development and methods to minimise risk in the drug development process
- **EXCLUSIVE INFORMAL NETWORKING:** Collaborate with industry peers in an environment promoting information exchange

NEW TO THE CONFERENCE
PROGRAMME

AN INTERACTIVE GROUP SESSION
The opportunity to design your own adaptive trial set to a research question!

BOOK BEFORE 31ST OCTOBER
AND RECEIVE £200 DISCOUNT

Supported by

[DrugResearcher.com](#)

GCP^j

[PCA](#)
Pharmaceutical
Companies
Analysis

ACADEMIC DISCOUNT AVAILABLE

To attend, contact Benn Walsh on Tel +44 (0) 20 7827 6158,
Fax +44 (0) 20 7827 6159, email bwalsh@smi-online.co.uk
or visit www.smi-online.co.uk/ts02.asp to register online

8.30 Registration & Coffee

9.00 **Joint Chairpersons' Opening Remarks**
Dr Michael Krams, aVP, Adaptive Trials, Clinical Development, **Wyeth**
Dr Jerald Schindler, President, **Cytel Pharmaceutical Research**

ADAPTIVE DESIGNS – THE ANSWER TO DEVELOPMENT PROBLEMS?

ADAPTIVE DESIGNS – TAXONOMY AND CLASSIFICATION

9.10 **Setting the scene**

- Providing a common denominator for terminology
- Defining what is in and out of scope
- Proposing where to focus our efforts
- Giving some key examples, case studies and/or simulations

Dr Inna Perevozskaya, Senior Biometrician, Clinical Biostatistics, **Merck Research Laboratories***

ISSUES IN IMPLEMENTING ADAPTIVE TRIALS

9.50 **Ensuring that there are no blockages to implementation**

- Ethical issues
- Complications in design and implementation
- Increasing awareness of adaptive designs
- Reducing biases
- Behavioural problems
- Is the market ready to fully embrace adaptive clinical trials?

Dr Steve Pascoe, Global Head, Respiratory/Dermatology Profiling Exploratory Clinical Development, **Novartis**

10.30 Morning Coffee

REGULATORY ACCEPTANCE OF FLEXIBLE DESIGNS

11.00 **Current regulatory landscape – EMEA, FDA, MHRA**

- EMEA reflection paper on flexible designs
- Opportunities and challenges from a regulatory perspective
- Building a new approach to very early interactions between sponsor and health authority

Dr Ian Hirsch, Statistics, **Medicines & Healthcare products Regulatory Agency (MHRA)**

ARE WE READY TO DEPLOY?

ADAPTIVE TRIAL DESIGN INFRASTRUCTURE

11.40 **Acquiring data early and linking with drug supply**

- Key issues in operation for effective clinical trial
- Optimisation of clinical trials infrastructure
- Infrastructure needed to incorporate flexibility into trial design
- Providing rapid access to ongoing trial information
- Building the infrastructure
- Design, process and planning

Dr Jerald Schindler, President, **Cytel Pharmaceutical Research**

12.20 Networking Lunch

MODEL-BASED ADAPTIVE DESIGNS

1.50 **A working model for dose-response relationship**

- Proposing a general class of adaptive designs based on optimal experimental design methodology
- Estimation of the target dose as accurately as possible
- Ethical concerns - ensuring the treatment of patients in the study are at doses that are both safe and efficacious

Dr Vlad Dragalin, Senior Director, Research Statistics, **GlaxoSmithKline**

IMPLEMENTATION – GETTING IT RIGHT BEFORE PHASE III

2.30 **Dose adaptive phase I and phase II trials**

- Simulation guided trial design:
 - What's the question?
 - Optimising the design
- Running dose adaptive studies

Tom Parke, Associate Director, Software Development, **Tessella Support Services**

3.10 Afternoon Tea

SAMPLE SIZE REASSESSMENT - GOOD OR BAD?

3.40 **The need for and logical difficulties with flexible designs**

- Many recent papers promote flexible designs that allow substantial design modifications
- The type I error can be protected by using a weighted test
- However, the efficiency of these designs has been questioned
- We also show that the weighted test can lead to absurd conclusions
- What can be done to combine flexibility with a convincing inference?

Dr Carl-Fredrik Burman, Statistical Science Director, **AstraZeneca** & **Christian Sonesson**, Senior Statistician, **AstraZeneca**

NEW AREAS FOR CONSIDERATION

4.20 **INTERACTIVE ROUNDTABLES**

- There will be three areas of discussion:
 - PHASE I: Identify the MTD
 - PHASE II: Adaptive dose response finding
 - SEAMLESS PHASE II/III
- What is the research question?
- What and how will we adapt?

Participants will design their own adaptive trial, by applying the material covered to a research question from their own experiences. Groups will be limited to approximately six participants and will be led by one or two members of the faculty. The session will close with each group briefly presenting their design and issues they encountered to the full group.

5.30 **Joint Chairpersons' Closing Remarks and Close of Day One**
 *Awaiting final Confirmation

SPONSORSHIP AND EXHIBITION OPPORTUNITIES

SMI offer sponsorship, exhibition, advertising and branding packages, uniquely tailored to complement your company's marketing strategy. Prime networking opportunities exist to entertain, enhance and expand your client base within the context of an independent discussion specific to your industry. Should you wish to join the increasing number of companies benefiting from sponsoring our conferences please call: Martin Cawte, SMI Sponsorship on +44 (0) 207 827 6728 or email: mcawte@smi-online.co.uk

Want to know how you can get involved? Interested in promoting your pharmaceutical services to this market? Contact Margaret Kiyimba, SMI Marketing on +44 (0) 207 827 6072 or email: mkiyimba@smi-online.co.uk

If you would like to suggest an idea for a new conference, please contact Jo-Anne Duff, Head of Content and Production on e-mail: jduff@smi-online.co.uk or by calling +44 207 827 6086

8.30 Re-registration & Coffee

9.00 **Joint Chairpersons' Opening Remarks**
 Dr Michael Krams, aVP Adaptive Trials, Clinical Development, **Wyeth**
 Dr Jerald Schindler, President, **Cytel Pharmaceutical Research**

KEYNOTE LECTURE

ADAPTIVE DESIGNS

9.10 **Selecting the right one?**

- Treatment (dose) selection
- Adaptive designs and the closed test principle
- Sample size reassessment
- Seamless phase II/II designs

Dr Franz Koenig, University Assistant, Section of Medical Statistics, **Medical University of Vienna**

MODELLING & SIMULATION

9.50 **SEAMLESS PHASE II/III AND SAMPLE SIZE REESTIMATION IN PHASE III – CASE STUDIES**
 Dr Michael Krams, aVP, Adaptive Trials, Clinical Development, **Wyeth**

10.30 Morning Coffee

APPLICATION OF ADAPTIVE DESIGN IN VACCINE DEVELOPMENT

10.50 **With examples in:**

- Sample size re-estimation
- Group sequential design
- Group sequential adjusted estimation
- Software implementation

Dr William Wang, Associate Director, Clinical Biostatistics, **Merck & Co**

ADAPTIVE APPROACHES TO LEARNING ABOUT SAFETY

11.30 **Assessing safety in the drug development process**

- Designs and statistical methods to assist in making decisions
- Streamlining the drug development process
- Reducing the risk of late stage clinical failure
- Lowering development costs

Dr Jerry Weaver, Associate Director, **Pfizer**

BAYESIAN METHODS

COMPARISONS OF FREQUENTIST AND BAYESIAN ADAPTIVE APPROACHES

12.10 **Determining the best statistical tool in drug development**

- Evidence measuring
- Utilisation of information resources
- Design, monitoring and analysis of adaptive trials
- Classic and Bayesian decision theories - optimisation
- Transition from hybrid to Bayesian approaches
- Regulatory aspects

Dr Mark Chang, Technical Director, **Millennium Pharmaceuticals**

12.50 Networking Lunch

SPEEDING UP THE PROCESS OF CLINICAL TRIALS

2.20 **Use of Bayesian methods in design**

- Opportunities and challenges
- Development in Bayesian methods
- Application of Bayesian methods in a novel product
- Practical Examples
- The challenges of the Bayesian approach in the regulatory setting

Dr Junfang Li, Director, Biostatistics, **Sanofi-Aventis**

DISEASE SPECIFIC APPROACHES

BAYESIAN METHODS WITH A FOCUS ON ONCOLOGY

3.00 **Approaches to clinical development**

- Key points for the Bayesian approach to clinical trials
- Use of Bayesian methods in support of decision-making in clinical development
- Providing a practical point of view
- Producing a checklist of essential items needed

Beat Neuenschwander, Senior Expert, Statistical Methodologist, **Novartis**

3.40 Afternoon Tea

A BAYESIAN APPROACH TO MULTIVARIATE REFERENCE REGIONS

4.00 **Applications of beat-to-beat in QT-TQ interval data**

- Methods for multivariate reference regions
- Current measure of cardiovascular risk in thorough QT studies
- Moving beyond QT prolongation using beat-to-beat QT-TQ data
- QT-TQ reference region for a normal individual

Dr Kimberly Crimin, Senior Principal Biostatistician II, **Wyeth**
 Co-authored by Dr Robb Muirhead, Senior Director, **Pfizer**

PANEL DISCUSSION:

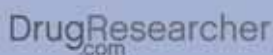
4.40 **Issues in implementation**

- Where are we?
- Where do we want to be?
- Next steps - how are we going to get there?

By focusing on the strategic and analytical issues in implementing adaptive designs, members of the faculty and audience are invited to participate in this panel discussion.

5.20 **Joint Chairpersons' Closing Remarks and Close of Conference**

Supported by



Drugresearcher.com is the leading B2B strategic news resource for the drug discovery market. Providing key decision makers and industry professionals with the latest breaking news across Europe, America and Asia Pacific. Drugresearcher.com supplies crucial market intelligence, with bespoke marketing capabilities, adding a complete information source to those within the pharmaceutical industry. www.drugresearcher.com



Good Clinical Practice Journal (GCPj) is the monthly, subscription magazine chosen by dedicated research professionals. It aids awareness, interpretation and implementation of the regulations that affect global clinical trials. GCPj helps bring drugs to market faster through commitment to excellence in all aspects of clinical research. www.pjpubs.com



Published by Espicom Business Intelligence, **Pharmaceutical Companies Analysis (PCA)** provides a complete and detailed review of over 40 of the world's major pharmaceutical companies. Each report provides a full review of the company's activities, from its origins to its latest corporate activity, including mergers and acquisitions, agreements, divestitures, major purchasing contracts and litigation. Sections are included on products, international activities and R&D, as well as a full, in-depth five year financial analysis. To start your subscription online or to download further information visit www.espicom.com/pca

About the SMI Pharmaceutical Team

SMi have been involved in the Pharmaceutical industry since 1993 and have developed a series of informative and niche events, covering the latest issues and developments surrounding the industry.

Events bring together senior industry professionals and serving companies who have a focus on being at the forefront of developments in this area. SMI aim to generate informed and topical discussion through the medium of both Conferences and Executive Briefings.

Our Pharmaceutical events are research-based and content driven with regular contact with major industry personnel and cover a wide range of industry sectors. For more information please visit www.smi-online.co.uk/pharma.asp

Pharmaceutical Forward Planner

OCTOBER 2006

- 23/24 Medical Devices – Regulation, Clinical Evaluation & Post Market Surveillance
- 25/26 Conducting Clinical Trials in Europe
- 30/31 Nutraceuticals & Functional Foods 2006

NOVEMBER 2006

- 01/ 02 HIV & AIDS – Novel Therapeutics and Strategies to Beat the Pandemic
- 01/02 European Pharmaceutical Pricing & Reimbursement, Frankfurt, Germany
- 13/14 Clinical Trials in CNS
- 20/21 Advances in Anti-Inflammatory Therapeutics
- 29/30 Outsourcing Clinical Trials

JANUARY 2007

- 22/23 Practical Approaches to Cardiac Safety
- 24/25 Paediatric Clinical Trials
- 31/1 Therapeutic Antibodies

FEBRUARY 2007

- 5/6 Adaptive Designs in Clinical Development – Scope, Implementation and Case Studies
- 7/8 Imaging in Neurology
- 12/13 Optimising Drug Formulation
- 14/15 Parallel Trade
- 21/22 Pharmaceutical Packaging & Labelling 2007
- 28/1 Drug Design VI

Introduction to Adaptive Designs - Concepts & Issues

7th February 2007, Crowne Plaza - The City,
Central London

In association with:



About the Executive Briefing:

This briefing will introduce the basic statistical theory of group sequential tests and some fundamental concepts of the adaptive design technique. Planning issues as well as how to analyse a trial with adaptive multistage group sequential test designs will be described.

8.30 Registration and Coffee

9.00 Group sequential designs

- Basics
- Critical values
- Types of common designs
- Power and sample size
- Comparison of designs
- Where are the merits?

9.45 The use function approach and other issues

- Definition
- Design characteristics
- Applications
- P-values and confidence intervals
- Practical issues

10.30 Morning Coffee

10.45 Adaptive designs

- The concept
- Two basic strategies
- Adaptive designs as a generalisation of group sequential designs
- Planning and analysis tools

11.30 Practical implementation of adaptive designs

- Specific issues
- Software solutions for group sequential and adaptive designs
- Practical examples
- The EMEA guideline
- Where do we go?

12.15 Discussion and questions - review of the session

12.30 Close of Executive Briefing

About the Briefing Leader:



Gernot Wassmer, PhD, is an Associate Professor for Biostatistics at the Institute of Medical Statistics, University of Cologne, Germany. He received his PhD 1993 at the University of Munich, Germany. From 1993 – 2000 he was a Research Fellow at the Institute of Statistics, University of Munich, at the Institute for Epidemiology, GSF Neuherberg, and at the Institute of Medical Statistics, University of Cologne. He also works as a statistical consultant for the pharmaceutical industry. His major research interest is in the field of statistical procedures for group sequential and adaptive plans in clinical trials.

About the Organisation:

The University of Cologne is a research university at the highest level with more than 250 co-operating institutes and departments. The Institute for Medical Statistics, Informatics and Epidemiology offers research, teachings, services and consultancy with special emphasis on biometrical research and its application in clinical trials.

ADAPTIVE DESIGNS IN CLINICAL DRUG DEVELOPMENT

5th & 6th February 2007, Central London

Executive Briefing: 7th February 2007, Central London

4 WAYS TO REGISTER

ONLINE at www.smi-online.co.uk/ts02.asp

FAX your booking form to +44 (0) 20 7827 6159

PHONE on +44 (0) 20 7827 6158

POST your booking form to: Eve Laskowski, SMi Group Ltd, Great Guildford Business Square, 30 Great Guildford Street, London SE1 0HS, United Kingdom

EARLY BIRD DISCOUNT

- Register before 31st October 2006 and receive a £200 discount
 £200 OFF DELEGATE PRICE
Register before 30th November 2006 and receive a £100 discount
 £100 OFF DELEGATE PRICE

Unique Reference Number

Our Reference

LVT47 TS

DELEGATE DETAILS

Please complete fully and clearly in capital letters.
Please photocopy for additional delegates.

Title: Forename: _____

Surname: _____

Job Title: _____

Department/Division: _____

Company/Organisation: _____

Email: _____

Address: _____

Town/City: _____

Post/Zip Code: _____ Country: _____

Direct Telephone: _____

Direct Fax: _____

Mobile: _____

Switchboard: _____

Signature: _____ Date: _____

I agree to be bound by SMi's Terms and Conditions of Booking

Terms and Conditions of Booking

Payment: If payment is not made at the time of booking, then an invoice will be issued and must be paid immediately and prior to the start of the event. If payment has not been received then credit card details will be requested before entry to the event. CD ROMs will not be despatched until payment has been received.

Substitutions/Name Changes: If you are unable to attend you may nominate, in writing, another delegate to take your place at any time prior to the start of the event. Two or more delegates may not 'share' a place at an event. Please make separate bookings for each delegate.

Cancellation: If you wish to cancel your attendance at a Conference and/or Briefing and you are unable to send a substitute, then we will refund/credit 50% of the due fee less a £50 administration charge, providing that cancellation is made in writing and received at least 28 days prior to the start of the event. Regrettably cancellation after this time cannot be accepted. We will however provide the Conference documentation on CD ROM to any delegate who has paid but is unable to attend for any reason. Due to the interactive nature of the Briefings we are not normally able to provide documentation in these circumstances. We cannot accept cancellations of orders placed for Documentation or CD ROM as these are reproduced specifically to order. If we have to cancel the event for any reason, then we will make a full refund immediately, but disclaim any further liability.

Alterations: It may become necessary for us to make alterations to the content, speakers, timing, venue or date of the event compared to the advertised programme.

Data Protection: The SMi Group gathers personal data in accordance with the UK Data Protection Act 1998 and we may use this to contact you by telephone, fax, post or email to tell you about other products and services. Unless you tick here we may also share your data with third parties offering complementary products or services. If you have any queries or want to update any of the data that we hold then please contact our Database Manager databasemanager@smi-online.co.uk or visit our website www.smi-online.co.uk/updates quoting the URN as detailed above your address on the attached letter.

CONFERENCE PRICES

I would like to attend: (Please tick)	Price	Total
CONFERENCE FEE		
<input type="checkbox"/> Conference & Executive Briefing	£1798.00 + VAT	£2112.65
<input type="checkbox"/> Conference only	£1299.00 + VAT	£1526.33
<input type="checkbox"/> Executive Briefing	£499.00 + VAT	£586.33
ACADEMIC FEE		
<input type="checkbox"/> Conference & Executive Briefing	£1198.00 + VAT	£1407.65
<input type="checkbox"/> Conference only	£699.00 + VAT	£821.33
<input type="checkbox"/> Executive Briefing	£499.00 + VAT	£586.33
PROMOTIONAL LITERATURE DISTRIBUTION		
<input type="checkbox"/> Distribution of your company's promotional literature to all conference attendees	£999.00 + VAT	£1173.83

• GROUP DISCOUNTS AVAILABLE •

The Conference fee includes refreshments, lunch, conference papers plus a CD ROM containing all of the presentations

CD ROMS/DOCUMENTATION

I cannot attend but would like to purchase the following CD ROMs/paper copy documentation: (Shipped 10-14 days after the event)

	Price	Total
<input type="checkbox"/> The Conference Presentations on CD ROM	£499.00 + VAT	£586.33
<input type="checkbox"/> The Conference Presentations - paper copy (or only £300 if ordered with a CD ROM)	£499.00 -	£499.00

PAYMENT

Payment must be made to SMi Group Ltd, and received before the event, by one of the following methods quoting reference T47 and the delegate's name. Bookings within 7 days of event requires a credit card as guarantee. Please indicate method of payment:

- UK BACS Sort Code 40-06-21, Account 91618695
 Wire Transfer HSBC Bank plc, 28 Borough High Street, London, SE1 1YB
Swift (BIC): MIDLGB22, Account 91618695
IBAN GB09MIDL40062191618695

- Cheque We can only accept Sterling cheques drawn on a UK bank.
 Credit Card Visa MasterCard American Express

Card No:

Valid From / Expiry Date /

Cardholder's Name: _____

Signature: _____ Date: _____

Card Billing Address (if different from above): _____

VENUE Crowne Plaza Hotel - The City, 19 New Bridge Street, London, EC4V 6DB

Book your accommodation at SMi discounted rates by calling us on +44 (0) 870 9090 713 or emailing hotels@smi-online.co.uk or send your fax to +44 (0) 870 9090 714

VAT

VAT at 17.5% is charged on the attendance fees for all delegates. VAT is also charged on CD ROMs for all UK customers and for those EU customers not supplying a registration number for their own country here: _____